INCH-POUND

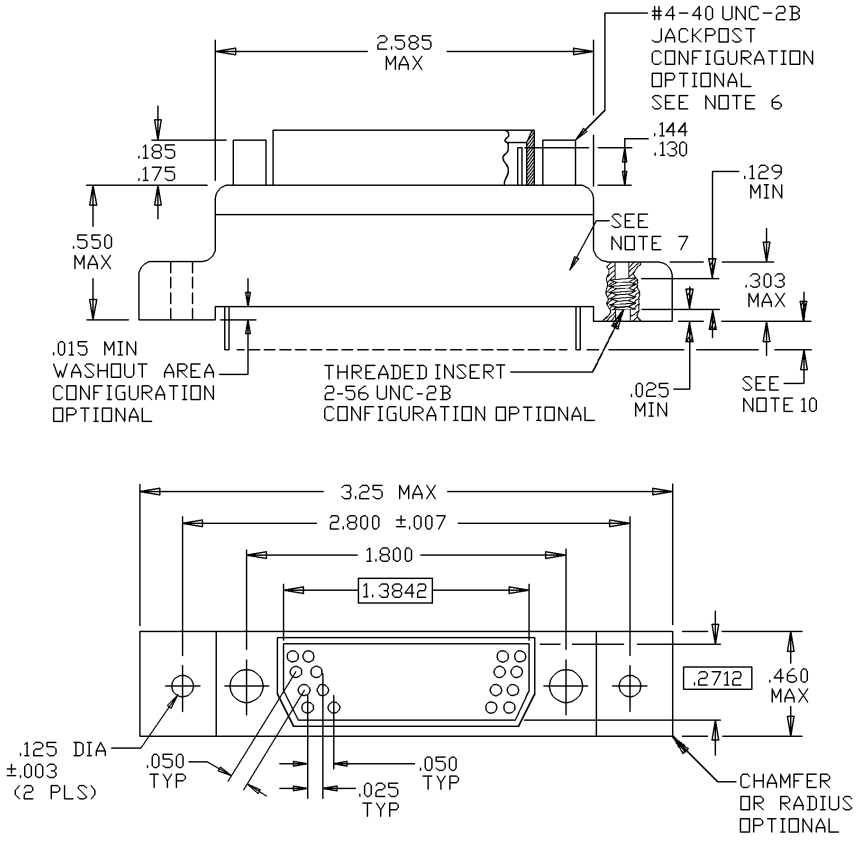
MIL-DTL-83513/27C
27 February 2003
SUPERSEDING
MIL-PRF-83513/27B
15 August 1997

DETAIL SPECIFICATION SHEET

CONNECTORS, ELECTRICAL, RECTANGULAR, RECEPTACLE, MICROMINIATURE, POLARIZED SHELL, STRAIGHT, SOCKET CONTACTS, 4 ROW, SOLDER TYPE, 100 CONTACTS, PRINTED CIRCUIT BOARD

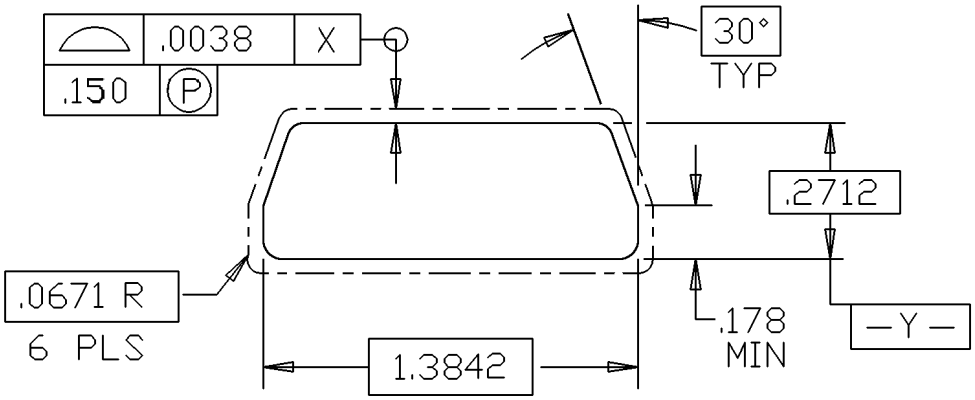
This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification and MIL-DTL-83513.



Inches	mm
.003	0.08
.007	0.18
.0038	0.097
.0671	1.704
.015	0.38
.025	0.64
.050	1.27
.125	3.18
.129	3.28
.130	3.30
.144	3.66
.150	3.81
.175	4.44
.178	4.52
.185	4.70
.2712	6.888
.303	7.70
.325	8.26
.460	11.68
.550	13.97
1.3842	35.159
1.800	45.72
2.585	65.66
2.800	71.12

FIGURE 1. Connector, receptacle, .050 spacing.

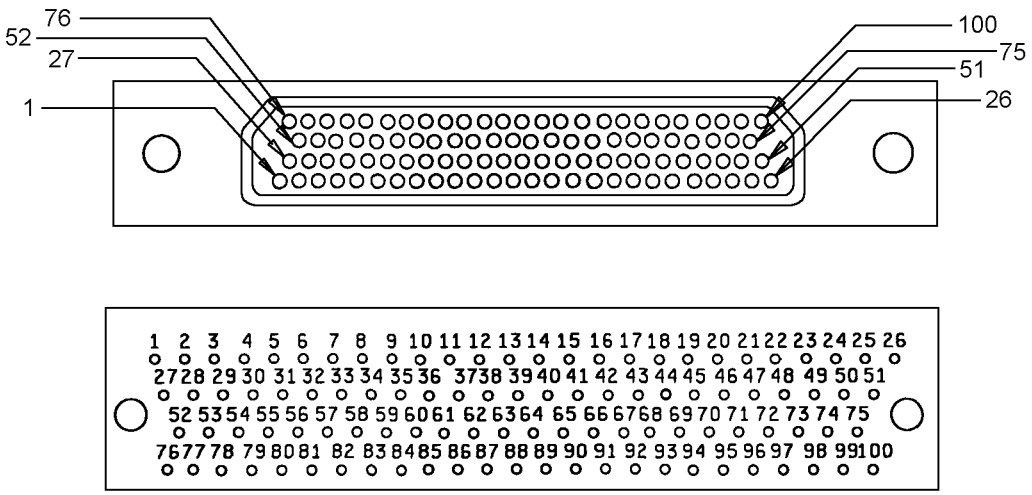


DETAIL OF INTERFACE

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Unless otherwise specified, tolerances are ±.005 inch (0.13 mm).
4. Termination organization area to be optionally molded or filled with a potting fill material capable of passing the electrical and environmental requirements of MIL-DTL-83513. Plastic molding shall conform to type GDI-30F or type SDG-F in accordance with ASTM D5948 or GCT-30F in accordance with ASTM D5927 or MIL-M-24519 or GST-40F in accordance with ASTM D4067 or MIL-M-24519 or GLCP-30F or GLCP-50 in accordance with ASTM D5138 or MIL-M-24519.
5. Metal shell shall be of material in accordance with MIL-DTL-83513 for class M parts.
6. Jackpost (permanently attached), when specified: Corrosion resistant steel in accordance with ASTM A484 and ASTM A582, 300 series stainless steel, passivated in accordance with SAE-AMS-QQ-P-35.
7. Separately molded plastic body (if used) shall conform to type GDI-30F or type SDG-F in accordance with ASTM D5948 or GCT-30F in accordance with ASTM D5927 or MIL-M-24519 or GST-40F in accordance with ASTM D4067 or MIL-M-24519 or GLCP-30F or GLCP-50 in accordance with ASTM D5138 or MIL-M-24519.
8. Wire termination sockets shall conform to A-A-59551, number 24 AWG copper.
9. Interfacial seals are included with each type receptacle connector.
10. Termination lengths available: .109 inch (2.77 mm), .140 inch (3.56 mm), or .172 inch (4.37 mm). The tolerance shall be ±.015 (0.38 mm) for all termination lengths.
11. Threaded insert, when specified: Corrosion resistant steel in accordance with ASTM A484 and ASTM A582, 300 series stainless steel, passivated in accordance with SAE-AMS-QQ-P-35.

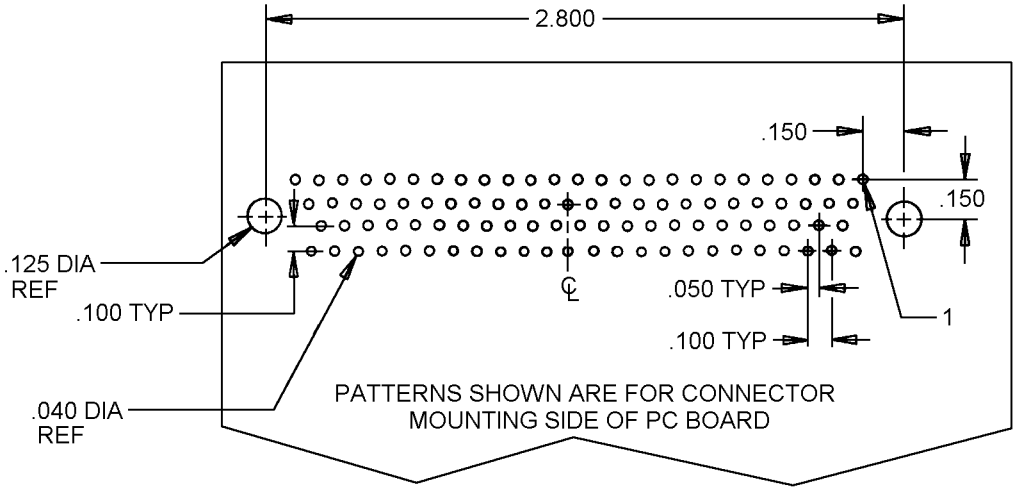
FIGURE 1. Connector, receptacle, .050 spacing - Continued.



TERMINATION VIEW - VERTICAL MOUNT

NOTE: Engaging face of socket insert shown, cavity identification numbers are for reference only and do not appear on the part.

FIGURE 2. Insert arrangement.



Inches	mm
.040	1.02
.050	1.27
.100	2.54
.125	3.18
.150	3.81
2.800	71.12

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are for general information only.
3. Unless otherwise specified, tolerances are ±.005 inch (0.13 mm).

FIGURE 3. Layout arrangement.

REQUIREMENTS:

Dimensions and configurations: See figures 1, 2 and 3.

Current rating, maximum: 3 amperes per contact.

Materials:

Termination organization area: Potting fill material capable of passing the electrical and environmental requirements of MIL-DTL-83513.

Shell: The requirements for shell materials shall be in accordance with MIL-DTL-83513.

Plastic body or plastic molding: Shall conform to the requirements of GDI-30F or type SDG-F in accordance with ASTM D5948 or GCT-30F in accordance with ASTM D5927 or MIL-M-24519 or GST-40F in accordance with ASTM D4067 or MIL-M-24519 or GLCP-30F or GLCP-50 in accordance with ASTM D5138 or MIL-M-24519

Jackpost: Corrosion resistant steel in accordance with ASTM A484 and ASTM A582, 300 series stainless steel, passivated in accordance with SAE-AMS-QQ-P-35.

Wire termination pins: Wire termination pins shall conform to A-A-59551, number 24 AWG copper.

Mating connector: Shall conform to MIL-DTL-83513/1 and MIL-DTL-83513/3.

Plating of termination leads: Solder dipping of termination leads will be accomplished in SN60 PB40 or SN63 PB37 in accordance with J-STD-006.

Part or Identifying Number (PIN): PIN shall consist of the letter M, the basic number of the specification sheet, a letter from the insert, a numerical code for the termination length, and a letter code for the shell finish and hardware column.

M83513/27-	H	01	C	P
Specification sheet number	Insert arrangements (see figure 2) H = 100	Termination length 01 = .109 02 = .140 03 = .172	Shell finish (Interface critical) C = cadmium N = electroless nickel (space application) P = passivated stainless steel	Hardware N = no jackpost or threaded insert P = jackpost attached T = threaded insert W = jackpost and threaded insert

CONCLUDING MATERIAL

Custodians:
Army - CR
Navy - EC
Air Force - 11
NASA - NA
DLA - CC

Preparing activity:
DLA - CC

(Project: 5935-4310-027)

Review activities:
Army - AT, MI
Navy - AS, CG, MC, SH
Air Force - 99